

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,922	09/26/2005	Frank Miller	10191/3698	9161
26646 7590 01/10/2008 KENYON & KENYON LLP			EXAMINER	
ONE BROADY			GANEY, STEVEN J	
NEW YORK, NY 10004		·	ART UNIT	PAPER NUMBER
			3752	
			MAIL DATE	DELIVERY MODE
			01/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
*	10/530,922	MILLER ET AL.				
Office Action Summary	Examiner	Art Unit				
	Steven J. Ganey	3752				
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute. Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from to cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 26 S	eptember 2005.					
_	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	•					
Disposition of Claims		•				
4) Claim(s) 16-31 is/are pending in the applicatio	n.					
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) 16-31 is/are rejected.		·				
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	<u> </u>					
Application Papers						
9) The specification is objected to by the Examine	ar.					
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
· · · · · · · · · · · · · · · · · · ·		·				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119		, , , , , , , , , , , , , , , , , , ,				
· · · · · · · · · · · · · · · · · · ·						
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)-(a) or (t).				
a)⊠ All b) Some * c) None of:	a have been received					
 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 						
3. Copies of the certified copies of the prio	•	ed III tills National Stage				
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
Paper No(s)/Mail Date Notice of Draftsperson's Patent Drawing Review (PTO-948) Notice of Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date Notice of Informal Patent Application						
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>4/8/05</u> .	5) Notice of Informal F 6) Other:	-ашн Аррисаноп				
S. Patent and Trademark Office	-,					

Art Unit: 3752

Page 2

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 16-26 and 28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO 200153675.

WO 200153675 discloses an atomization system for a fuel comprising all the featured elements of the instant invention.

3. Claims 16, 18, 20, 22, 27, 28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheather.

Sheather discloses an atomization system for a fuel comprising all the featured elements of the instant invention, note specifically connecting tube 12 with a plurality of atomization points 19/20; metering device 15 at metering point 16; and additional tube 14.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Application/Control Number:

10/530,922

ͺ ንͺ .

Art Unit: 3752

Page 3

5. Claims 16-26 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Zahringer et al.

Zahringer et al discloses an atomization system for a fuel comprising all the featured elements of the instant invention, note specifically connecting tube 2 with an atomization point 23; metering device/metering point at 20; and additional tube 21.

Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheather.

Sheather discloses all the featured elements of the instant invention except for the fuel injector being inclined at a specific angle to the an axis of the tube and connecting tube. It would have been obvious to one having ordinary skill in the art at the time the invention was made to Provide the fuel injector of Sheather at an inclined angle since such a modification would further enhance atomization and mixing in the chamber 13.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsuji shows a fuel nozzle with holes around the perimeter of the nozzle. Reed et al shows fuel nozzle with an additional tube.

Page 4

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Ganey whose telephone number is 571-272-4899. The examiner can normally be reached on 9:00-5:00; Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sjg 1/7/08 STEVEN J. GANEY PRIMARY EXAMINER

1/7/08